

Math 307 Quiz 6

November 5, 2014

Problem 1. Find the general solution to each of the following homogeneous ordinary differential equations with constant coefficients.

(a) $y'' - 3y' - 4y = 0$

(b) $2y'' + 4y' + 2y = 0$

(c) $y'' - 2y' + 2y = 0$

Problem 2. Express the complex number

$$\frac{2 + 3i}{1 - 2i}$$

in $a + ib$ form for some real numbers a, b .